

2. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 2, and therefore denies same.

3. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 3, and therefore denies same.

4. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 4, and therefore denies same.

5. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 5, and therefore denies same.

6. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 6, and therefore denies same.

7. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 7, and therefore denies same.

8. Broadcom admits that Broadcom Pte Ltd is a limited company organized under the laws of the Republic of Singapore, and that Broadcom Pte Ltd has a place of business at No. 1 Yishun Avenue 7, Singapore 768923. Broadcom denies any remaining allegations in paragraph 8.

9. Broadcom admits that Broadcom Corporation is a corporation organized under the laws of the state of California, and that Corporation Service Company d/b/a CSC-Lawyers Incorporated Service Company, located at 211 E. 7th Street, Suite 620, Austin, Texas 78701, is a registered agent for service. Broadcom denies any remaining allegations in paragraph 9.

10. Broadcom denies the allegations of paragraph 10.

11. Broadcom denies the allegations of paragraph 11.

12. Broadcom denies the allegations of paragraph 12.

13. Broadcom denies the allegations of paragraph 13.

14. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 14, and therefore denies same.

15. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 15, and therefore denies same.

16. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 16, and therefore denies same.

17. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 17, and therefore denies same.

18. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 18, and therefore denies same.

19. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 19, and therefore denies same.

20. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 20, and therefore denies same.

21. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 21, and therefore denies same.

22. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 22, and therefore denies same.

23. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 23, and therefore denies same.

24. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 24, and therefore denies same.

25. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 25, and therefore denies same.

26. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 26, and therefore denies same.

27. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 27, and therefore denies same.

28. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 28, and therefore denies same.

29. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 29, and therefore denies same.

30. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 30, and therefore denies same.

31. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 31, and therefore denies same.

32. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 32, and therefore denies same.

33. Broadcom denies the allegations of paragraph 33.

JURISDICTION AND VENUE

34. Broadcom admits that this is an action alleging infringement of United States patents arising under 35 U.S.C. §§ 271, 281, and 284-85. Broadcom further admits that this Court has subject matter jurisdiction over patent actions generally under 28 U.S.C. §§ 1331 and 1338(a). Broadcom denies any remaining allegations of paragraph 34.

35. For purposes of this action only, Broadcom admits that it is subject to this Court's personal jurisdiction. With regard to the remaining allegations of paragraph 35 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement, either in this District or otherwise. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

36. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 36, and therefore denies same.

37. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 37, and therefore denies same.

38. For purposes of this action only, Broadcom admits that venue is proper in this District. Broadcom further admits Broadcom Pte Ltd is a foreign entity, and that Broadcom Corporation has a place of business in this District at 2901 Via Fortuna Drive, Suite 400, Floor 4, Terrace 6, Austin, Texas 78746. With regard to any remaining allegations of paragraph 38, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement, either in this District or otherwise.

39. For purposes of this action only, Broadcom admits that venue is proper in this District with regard to Broadcom Pte Ltd. Broadcom further admits that Broadcom Pte Ltd is organized under the laws of Singapore. With regard to any remaining allegations of paragraph 39, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement, either in this District or otherwise.

40. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 40, and therefore denies same.

41. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 41, and therefore denies same.

42. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 42, and therefore denies same.

43. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 43, and therefore denies same.

44. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 44, and therefore denies same.

BACKGROUND

45. Broadcom denies American Patent's characterization of the patents-in-suit, and any alleged technology disclosed therein. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the remaining allegations of paragraph 45, and therefore denies same.

46. Broadcom denies American Patent's characterization of the state of the art prior to the patents-in-suit, and denies any remaining allegations of paragraph 46.

47. Broadcom denies American Patent's characterization of the patents-in-suit, and any alleged technology disclosed therein. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the remaining allegations of paragraph 47, and therefore denies same.

48. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 48, and therefore denies same.

COUNT I

DIRECT INFRINGEMENT OF U.S. PATENT NO. 6,964,001

49. Broadcom admits that the face of U.S. Patent No. 6,964,001 (“the ’001 Patent”) states that the United States Patent and Trademark Office issued the ’001 Patent on November 8, 2005, and that the title of the ’001 Patent is “On-Chip Service Processor.” Broadcom denies the remaining allegations of paragraph 49, including that the ’001 Patent was duly and legally issued.

50. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 50, and therefore denies same.

51. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 51, and therefore denies same.

52. Broadcom admits that Broadcom Corporation has sold the BCM58712 and BCM58713 series processors. Broadcom denies the remaining allegations of paragraph 52.

53. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 53, and therefore denies same.

54. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 54, and therefore denies same.

55. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 55, and therefore denies same.

56. With regard to the allegations in paragraph 56 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient

knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

57. With regard to the allegations in paragraph 57 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

58. With regard to the allegations in paragraph 58 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

59. With regard to the allegations in paragraph 59 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

60. With regard to the allegations in paragraph 60 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

61. With regard to the allegations in paragraph 61 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

62. With regard to the allegations in paragraph 62 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

63. With regard to the allegations in paragraph 63 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

64. With regard to the allegations in paragraph 64 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

65. With regard to the allegations in paragraph 65 against Broadcom, Broadcom admits that it did not have knowledge of the '001 Patent prior to the filing of this action. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or

information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

66. Broadcom admits that U.S. Patent No. 6,687,865 was cited during the prosecution of U.S. Patent No. 7,567,892, which on its face indicates that it is assigned to Broadcom Corporation. Broadcom further admits that the U.S. Patent and Trademark Office Examiner stated during prosecution of U.S. Patent No. 7,567,892, “Dervisoglu et al. (U.S. Patent No. 6,687,865) discloses an on-chip service processor for testing and debugging of integrated circuits.” Broadcom also admits that Geoff Barrett, Simon Christopher Dequin Clemow, and Andrew Jon Dawson are listed on the face of U.S. Patent No. 7,567,892 as co-inventors. Broadcom denies the remaining allegations of paragraph 66.

67. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 67, and therefore denies same.

68. With regard to the allegations in paragraph 68 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

69. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 69, and therefore denies same.

COUNT II

DIRECT INFRINGEMENT OF U.S. PATENT NO. 7,836,371

70. Broadcom admits that the face of U.S. Patent No. 7,836,371 (“the ’371 Patent”) states that the United States Patent and Trademark Office issued the ’371 Patent on November

16, 2010, and that the title of the '371 Patent is "On-Chip Service Processor." Broadcom denies the remaining allegations of paragraph 70, including that the '371 Patent was duly and legally issued.

71. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 71, and therefore denies same.

72. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 72, and therefore denies same.

73. Broadcom admits that Broadcom Corporation has sold the BCM58712 and BCM58713 series processors. Broadcom denies the remaining allegations of paragraph 73.

74. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 74, and therefore denies same.

75. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 75, and therefore denies same.

76. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 76, and therefore denies same.

77. With regard to the allegations in paragraph 77 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

78. With regard to the allegations in paragraph 78 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient

knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

79. With regard to the allegations in paragraph 79 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

80. With regard to the allegations in paragraph 80 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

81. With regard to the allegations in paragraph 81 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

82. With regard to the allegations in paragraph 82 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

83. With regard to the allegations in paragraph 83 against Broadcom, Broadcom admits that it did not have knowledge of the '371 Patent prior to the filing of this action. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

84. Broadcom admits that U.S. Patent No. 6,687,865 was cited during the prosecution of U.S. Patent No. 7,567,892, which on its face indicates that it is assigned to Broadcom Corporation. Broadcom further admits that the U.S. Patent and Trademark Office Examiner stated during prosecution of U.S. Patent No. 7,567,892, "Dervisoglu et al. (U.S. Patent No. 6,687,865) discloses an on-chip service processor for testing and debugging of integrated circuits." Broadcom also admits that Geoff Barrett, Simon Christopher Dequin Clemow, and Andrew Jon Dawson are listed on the face of U.S. Patent No. 7,567,892 as co-inventors. Broadcom denies the remaining allegations of paragraph 84.

85. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 85, and therefore denies same.

86. With regard to the allegations in paragraph 86 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

87. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 87, and therefore denies same.

COUNT III

DIRECT INFRINGEMENT OF U.S. PATENT NO. 8,239,716

88. Broadcom admits that the face of U.S. Patent No. 8,239,716 (“the ’716 Patent”) states that the United States Patent and Trademark Office issued the ’716 Patent on August 7, 2012, and that the title of the ’716 Patent is “On-Chip Service Processor.” Broadcom denies the remaining allegations of paragraph 88, including that the ’716 Patent was duly and legally issued.

89. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 89, and therefore denies same.

90. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 90, and therefore denies same.

91. Broadcom admits that Broadcom Corporation has sold the BCM58712 and BCM58713 series processors. Broadcom denies the remaining allegations of paragraph 91.

92. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 92, and therefore denies same.

93. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 93, and therefore denies same.

94. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 94, and therefore denies same.

95. With regard to the allegations in paragraph 95 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient

knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

96. With regard to the allegations in paragraph 96 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

97. With regard to the allegations in paragraph 97 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

98. With regard to the allegations in paragraph 98 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

99. With regard to the allegations in paragraph 99 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

100. With regard to the allegations in paragraph 100 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

101. With regard to the allegations in paragraph 101 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

102. With regard to the allegations in paragraph 102 against Broadcom, Broadcom admits that it did not have knowledge of the '716 Patent prior to the filing of this action. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

103. Broadcom admits that U.S. Patent No. 6,687,865 was cited during the prosecution of U.S. Patent No. 7,567,892, which on its face indicates that it is assigned to Broadcom Corporation. Broadcom further admits that the U.S. Patent and Trademark Office Examiner stated during prosecution of U.S. Patent No. 7,567,892, "Dervisoglu et al. (U.S. Patent No. 6,687,865) discloses an on-chip service processor for testing and debugging of integrated circuits." Broadcom also admits that Geoff Barrett, Simon Christopher Dequin Clemow, and Andrew Jon Dawson are listed on the face of U.S. Patent No. 7,567,892 as co-inventors. Broadcom denies the remaining allegations of paragraph 103.

104. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 104, and therefore denies same.

105. With regard to the allegations in paragraph 105 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

106. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 106, and therefore denies same.

COUNT IV

DIRECT INFRINGEMENT OF U.S. PATENT NO. 8,996,938

107. Broadcom admits that the face of U.S. Patent No. 8,996,938 (“the ’938 Patent”) states that the United States Patent and Trademark Office issued the ’938 Patent on March 31, 2015, and that the title of the ’938 Patent is “On-Chip Service Processor.” Broadcom denies the remaining allegations of paragraph 107, including that the ’938 Patent was duly and legally issued.

108. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 108, and therefore denies same.

109. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 109, and therefore denies same.

110. Broadcom admits that Broadcom Corporation has sold the BCM58712 and BCM58713 series processors. Broadcom denies the remaining allegations of paragraph 110.

111. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 111, and therefore denies same.

112. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 112, and therefore denies same.

113. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 113, and therefore denies same.

114. With regard to the allegations in paragraph 114 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

115. With regard to the allegations in paragraph 115 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

116. With regard to the allegations in paragraph 116 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

117. With regard to the allegations in paragraph 117 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement.

With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

118. With regard to the allegations in paragraph 118 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

119. With regard to the allegations in paragraph 119 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

120. With regard to the allegations in paragraph 120 against Broadcom, Broadcom admits that it did not have knowledge of the '938 Patent prior to the filing of this action. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

121. Broadcom admits that U.S. Patent No. 6,687,865 was cited during the prosecution of U.S. Patent No. 7,567,892, which on its face indicates that it is assigned to Broadcom Corporation. Broadcom further admits that the U.S. Patent and Trademark Office Examiner stated during prosecution of U.S. Patent No. 7,567,892, "Dervisoglu et al. (U.S. Patent No. 6,687,865) discloses an on-chip service processor for testing and debugging of integrated

circuits.” Broadcom also admits that Geoff Barrett, Simon Christopher Dequin Clemow, and Andrew Jon Dawson are listed on the face of U.S. Patent No. 7,567,892 as co-inventors. Broadcom denies the remaining allegations of paragraph 121.

122. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 122, and therefore denies same.

123. With regard to the allegations in paragraph 123 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

124. Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of the allegations of paragraph 124, and therefore denies same.

125. With regard to the allegations in paragraph 125 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement, indirectly or otherwise. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

126. With regard to the allegations in paragraph 126 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement, indirectly or otherwise. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

127. With regard to the allegations in paragraph 127 against Broadcom, Broadcom denies those allegations, including that Broadcom has committed any acts of patent infringement, indirectly or otherwise. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

128. With regard to the allegations in paragraph 128 against Broadcom, Broadcom denies those allegations. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

129. With regard to the allegations in paragraph 129 against Broadcom, Broadcom denies those allegations. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

130. With regard to the allegations in paragraph 130 against Broadcom, Broadcom denies those allegations. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

131. With regard to the allegations in paragraph 131 against Broadcom, Broadcom denies those allegations. With regard to the allegations against other Defendants, Broadcom is without sufficient knowledge or information to form a belief as to the truth or falsity of those allegations, and therefore denies same.

JURY DEMAND

Broadcom admits that this paragraph contains a demand for jury trial to which no response is required. Broadcom also demands a trial by jury.

PRAYER FOR RELIEF

Broadcom specifically denies any factual assertions contained in the prayer for relief and further denies that American Patents is entitled to any relief sought in its prayer for relief.

BROADCOM'S AFFIRMATIVE DEFENSES

Without any admission as to the burden of proof, and subject to its responses above, Broadcom asserts the following defenses, upon information and belief, in response to the allegations of the Complaint. Regardless of how such defenses are listed herein, Broadcom undertakes the burden of proof only as to those defenses that are deemed affirmative defenses as a matter of law. Broadcom expressly reserves the right to amend or raise additional defenses pursuant to any docket control order or as additional information becomes available through further investigation and discovery.

**First Affirmative Defense
(Non-Infringement)**

Broadcom has not infringed and does not infringe, directly, indirectly, literally or by the doctrine of equivalents, any valid and enforceable claim of the '001, '371, '716, and/or '938 Patents. For example, and without limitation, asserted claim 5 of the '001 Patent requires an "on-chip logic analyzer" and "means to align said signals propagated through said probe lines." However, the accused Broadcom products identified in the Complaint do not meet these claim limitations, either literally, or under the doctrine of equivalents. Similarly, for example, and without limitation, asserted claim 7 of the '371 Patent requires a "service processor unit" that is "adapted to perform capture and analysis of system operation signals." However, the accused

Broadcom products identified in the Complaint do not meet this claim limitation, either literally, or under the doctrine of equivalents. Likewise, for example, and without limitation, asserted claim 1 of the '716 Patent requires an "analysis engine" that is "configured to align signals received from said probe lines during normal system operation." However, the accused Broadcom products identified in the Complaint do not meet this claim limitation, either literally, or under the doctrine of equivalents. Finally, for example, and without limitation, claim 1 of the '938 Patent requires an "analysis engine." However, the accused Broadcom products identified in the Complaint do not meet this claim limitation, either literally, or under the doctrine of equivalents.

**Second Affirmative Defense
(Invalidity)**

One or more claims of the '001, '371, '716, and/or '938 Patents are invalid for failure to satisfy one or more of the requirements for patentability set forth in Title 35 of the United States Code, including, but not limited to 35 U.S.C. §§ 101, 102, 103, and/or 112. For example, and without limitation, asserted claim 5 of the '001 Patent is anticipated and/or rendered obvious by U.S. Pat. Nos. 5,642,479; 5,809,037; 5,905,738; and/or 6,182,247. Similarly, for example, and without limitation, asserted claim 7 of the '371 Patent is anticipated and/or rendered obvious by U.S. Pat. Nos. 5,642,479; 5,809,037; and/or 5,905,738. Likewise, for example, and without limitation, asserted claim 1 of the '716 Patent is anticipated and/or rendered obvious by U.S. Pat. Nos. 5,544,311; 5,642,479; 5,809,037; 5,905,738; 6,182,247; and/or 6,618,775. Finally, for example, and without limitation, asserted claim 1 of the '938 Patent is anticipated and/or rendered obvious by U.S. Pat. Nos. 5,642,479; 5,809,037; 5,905,738; 6,182,247; and/or 6,618,775.

**Third Affirmative Defense
(Prosecution History Estoppel)**

By reason of statements, representations, admissions, concessions, arguments, omissions and/or amendments made by and/or on behalf of the applicants during the prosecution of the applications that led to the issuance of the '001, '371, '716, and '938 Patents, American Patents' claims of patent infringement are barred, in whole or in part, by the doctrine of prosecution history estoppel and/or disclaimer.

**Fourth Affirmative Defense
(Statutory Limit on Damages)**

American Patents' claims for damages and/or costs are statutorily limited by 35 U.S.C. §§ 286-287. Specifically, on information and belief, any claim for pre-suit damages is barred, in whole or in part, for failure to comply with the marking and notice requirements of 35 U.S.C. § 287.

**Fifth Affirmative Defense
(Express License, Implied License, and Patent Exhaustion)**

American Patents' claims are barred, in whole or in part, by express license agreements and/or under the doctrines of implied license, or patent exhaustion. More specifically, American Patents' claims for damages for infringement are limited or entirely foreclosed to the extent that allegedly infringing components and/or products are supplied, directly or indirectly, to Broadcom by an entity or entities having a license to the '001, '371, '716, and/or '938 Patents. Moreover, American Patents' claims are precluded under the doctrine of patent exhaustion.

**Sixth Affirmative Defense
(Equitable Defenses)**

American Patents' claims are barred, in whole or in part, by the doctrines of waiver, implied waiver, acquiescence, equitable estoppel, unclean hands and/or other equitable remedies.

**Seventh Affirmative Defense
(Government Use)**

To the extent that any accused Broadcom product has been used or manufactured by or for the United States Government, American Patents' claims and demands for relief are barred by 28 U.S.C. § 1498.

Reservation of Remaining Defenses

Broadcom reserves all defenses under Rule 8(c) of the Federal Rules of Civil Procedure, the Patent Laws of the United States, and any other defenses, at law or in equity, which may now exist or in the future be available based on discovery.

BROADCOM CORPORATION'S COUNTERCLAIMS

1. This is an action seeking declaratory judgements of non-infringement and invalidity of U.S. Patent No. 6,964,001 ("the '001 Patent"), U.S. Patent No. 7,836,371 ("the '371 Patent"), U.S. Patent No. 8,239,716 ("the '716 Patent"), and U.S. Patent No. 8,996,938 ("the '938 Patent").

THE PARTIES

2. Counterclaimant Broadcom Corporation ("Broadcom Corp.") is a California corporation with its principal place of business at 1320 Ridder Park Drive, San Jose, CA 95131.

3. Upon information and belief, Counterclaim Defendant American Patents LLC ("American Patents") is a Texas limited liability company with its principal place of business at 2325 Oak Alley, Tyler, Texas 75703.

4. American Patents has submitted to the personal jurisdiction of this Court by bringing the present action against Broadcom Corp.

5. This action arises under the Patent Laws of the United States, 35 U.S.C. §§ 100, et seq., and the Declaratory Judgments Act, 28 U.S.C. §§ 2201 and 2202, based on an actual

justiciable controversy between Broadcom Corp. and American Patents. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331, 1338(a) and 2201.

6. To the extent venue is proper in the underlying patent infringement action, venue is proper here as to these Counterclaims under 28 U.S.C. §§ 1391 and 1400(b). However, Broadcom Corp. reserves the right to move to transfer venue in the underlying patent infringement action to a more convenient judicial district irrespective of the allegations in these Counterclaims.

FIRST COUNTERCLAIM

(Declaratory Judgment of Non-Infringement of the '001 Patent)

7. Broadcom Corp. re-alleges and incorporates by reference the allegations in paragraph 1-6 above.

8. There exists an actual case or controversy between Broadcom Corp. and American Patents concerning the alleged infringement of the '001 Patent by virtue of American Patents' Complaint and Broadcom Corp.'s Answer and Affirmative Defenses thereto.

9. Broadcom Corp. has not infringed and does not infringe, directly or indirectly, literally or under the doctrine of equivalents, any claim of the '001 Patent.

10. For example, and without limitation, asserted claim 5 of the '001 Patent requires an "on-chip logic analyzer" and "means to align said signals propagated through said probe lines." However, the accused Broadcom Corp. products identified in the Complaint do not meet these claim limitations, either literally, or under the doctrine of equivalents.

11. Broadcom Corp. therefore seeks a declaration from this Court that Broadcom Corp. does not infringe any claim of the '001 Patent.

SECOND COUNTERCLAIM

(Declaratory Judgment of Invalidity of the '001 Patent)

12. Broadcom Corp. re-alleges and incorporates by reference the allegations in paragraph 1-11 above.

13. There exists an actual case or controversy between Broadcom Corp. and American Patents concerning the validity of the '001 Patent by virtue of American Patents' Complaint and Broadcom Corp.'s Answer and Affirmative Defenses thereto.

14. One or more claims of the '001 Patent are invalid for failure to meet one or more of the requirements for patentability set forth in Title 35 of the United States Code, including, but not limited to 35 U.S.C. §§ 101, 102, 103, and/or 112.

15. For example, and without limitation, asserted claim 5 of the '001 Patent is anticipated and/or rendered obvious by U.S. Pat. Nos. 5,642,479; 5,809,037; 5,905,738; and/or 6,182,247.

16. Broadcom Corp. therefore seeks a declaration from this Court that one or more of the claims of the '001 Patent are invalid.

THIRD COUNTERCLAIM

(Declaratory Judgment of Non-Infringement of the '371 Patent)

17. Broadcom Corp. re-alleges and incorporates by reference the allegations in paragraph 1-16 above.

18. There exists an actual case or controversy between Broadcom Corp. and American Patents concerning the alleged infringement of the '371 Patent by virtue of American Patents' Complaint and Broadcom Corp.'s Answer and Affirmative Defenses thereto.

19. Broadcom Corp. has not infringed and does not infringe, directly or indirectly, literally or under the doctrine of equivalents, any claim of the '371 Patent.

20. For example, and without limitation, asserted claim 7 of the '371 Patent requires a “service processor unit” that is “adapted to perform capture and analysis of system operation signals.” However, the accused Broadcom Corp. products identified in the Complaint do not meet this claim limitation, either literally, or under the doctrine of equivalents.

21. Broadcom Corp. therefore seeks a declaration from this Court that Broadcom Corp. does not infringe any claim of the '371 Patent.

FOURTH COUNTERCLAIM

(Declaratory Judgment of Invalidity of the '371 Patent)

22. Broadcom Corp. re-alleges and incorporates by reference the allegations in paragraph 1-21 above.

23. There exists an actual case or controversy between Broadcom Corp. and American Patents concerning the validity of the '371 Patent by virtue of American Patents' Complaint and Broadcom Corp.'s Answer and Affirmative Defenses thereto.

24. One or more claims of the '371 Patent are invalid for failure to meet one or more of the requirements for patentability set forth in Title 35 of the United States Code, including, but not limited to 35 U.S.C. §§ 101, 102, 103, and/or 112.

25. For example, and without limitation, asserted claim 7 of the '371 Patent is anticipated and/or rendered obvious by U.S. Pat. Nos. 5,642,479; 5,809,037; and/or 5,905,738.

26. Broadcom Corp. therefore seeks a declaration from this Court that one or more of the claims of the '371 Patent are invalid.

FIFTH COUNTERCLAIM

(Declaratory Judgment of Non-Infringement of the '716 Patent)

27. Broadcom Corp. re-alleges and incorporates by reference the allegations in paragraph 1-26 above.

28. There exists an actual case or controversy between Broadcom Corp. and American Patents concerning the alleged infringement of the '716 Patent by virtue of American Patents' Complaint and Broadcom Corp.'s Answer and Affirmative Defenses thereto.

29. Broadcom Corp. has not infringed and does not infringe, directly or indirectly, literally or under the doctrine of equivalents, any claim of the '716 Patent.

30. For example, and without limitation, asserted claim 1 of the '716 Patent requires an "analysis engine" that is "configured to align signals received from said probe lines during normal system operation." However, the accused Broadcom Corp. products identified in the Complaint do not meet this claim limitation, either literally, or under the doctrine of equivalents.

31. Broadcom Corp. therefore seeks a declaration from this Court that Broadcom Corp. does not infringe any claim of the '716 Patent.

SIXTH COUNTERCLAIM

(Declaratory Judgment of Invalidity of the '716 Patent)

32. Broadcom Corp. re-alleges and incorporates by reference the allegations in paragraph 1-31 above.

33. There exists an actual case or controversy between Broadcom Corp. and American Patents concerning the validity of the '716 Patent by virtue of American Patents' Complaint and Broadcom Corp.'s Answer and Affirmative Defenses thereto.

34. One or more claims of the '716 Patent are invalid for failure to meet one or more of the requirements for patentability set forth in Title 35 of the United States Code, including, but not limited to 35 U.S.C. §§ 101, 102, 103, and/or 112.

35. For example, and without limitation, asserted claim 1 of the '716 Patent is anticipated and/or rendered obvious by U.S. Pat. Nos. 5,544,311; 5,642,479; 5,809,037; 5,905,738; 6,182,247; and/or 6,618,775.

36. Broadcom Corp. therefore seeks a declaration from this Court that one or more of the claims of the '716 Patent are invalid.

SEVENTH COUNTERCLAIM

(Declaratory Judgment of Non-Infringement of the '938 Patent)

37. Broadcom Corp. re-alleges and incorporates by reference the allegations in paragraph 1-36 above.

38. There exists an actual case or controversy between Broadcom Corp. and American Patents concerning the alleged infringement of the '938 Patent by virtue of American Patents' Complaint and Broadcom Corp.'s Answer and Affirmative Defenses thereto.

39. Broadcom Corp. has not infringed and does not infringe, directly or indirectly, literally or under the doctrine of equivalents, any claim of the '938 Patent.

40. For example, and without limitation, claim 1 of the '938 Patent requires an "analysis engine." However, the accused Broadcom Corp. products identified in the Complaint do not meet this claim limitation, either literally, or under the doctrine of equivalents.

41. Broadcom Corp. therefore seeks a declaration from this Court that Broadcom Corp. does not infringe any claim of the '938 Patent.

EIGHTH COUNTERCLAIM

(Declaratory Judgment of Invalidity of the '938 Patent)

42. Broadcom Corp. re-alleges and incorporates by reference the allegations in paragraph 1-41 above.

43. There exists an actual case or controversy between Broadcom Corp. and American Patents concerning the validity of the '938 Patent by virtue of American Patents' Complaint and Broadcom Corp.'s Answer and Affirmative Defenses thereto.

44. One or more claims of the '938 Patent are invalid for failure to meet one or more of the requirements for patentability set forth in Title 35 of the United States Code, including, but not limited to 35 U.S.C. §§ 101, 102, 103, and/or 112.

45. For example, and without limitation, asserted claim 1 of the '938 Patent is anticipated and/or rendered obvious by U.S. Pat. Nos. 5,642,479; 5,809,037; 5,905,738; 6,182,247; and/or 6,618,775.

46. Broadcom Corp. therefore seeks a declaration from this Court that one or more of the claims of the '938 Patent are invalid.

PRAYER FOR RELIEF

WHEREFORE, Broadcom Corp. prays that the Court enter judgment in its favor and against American Patents as follows:

- A. Declaring that the claims of the '001, '371, '716, and/or '938 Patents have not been and are not being infringed by Broadcom Corp.;
- B. Declaring that the claims of the '001, '371, '716, and/or '938 Patents are invalid;
- C. Denying all relief that American Patents seeks in its Complaint;

D. Awarding Broadcom Corp. its expenses and costs in accordance with Rule 54(d) of the Federal Rules of Civil Procedure;

E. Finding this case to be exceptional under 35 U.S.C. § 285 and awarding Broadcom Corp. its costs and attorneys' fees; and

F. Awarding Broadcom Corp. any other relief that the Court deems just and proper.

Dated: February 8, 2019

Respectfully submitted,

/s/ Tyler T. VanHoutan

Tyler T. VanHoutan (admitted *pro hac vice*)

Lead Attorney

MCGUIREWOODS LLP

600 Travis Street, Suite 7500

Houston, TX 77002

Telephone: 713.571.9191

Facsimile: 713.571.9652

tvanhoutan@mcguirewoods.com

Paige Arnette Amstutz (State Bar No. 00796136)

SCOTT, DOUGLASS & McCONNICO, LLP

303 Colorado Street, Suite 2400

Austin, TX 78701

Telephone: 512.495.6300

Facsimile: 512.495.6399

pamstutz@scottdoug.com

*Counsel for Broadcom Pte Ltd and
Broadcom Corporation*

CERTIFICATE OF SERVICE

Pursuant to the Federal Rules of Civil Procedure and Local Rule CV-5, I hereby certify that all counsel of record who have appeared in this case are being served on this day of February 8, 2019, with a copy of the foregoing via the Court's CM/ECF system.

/s/ Tyler T. VanHoutan
Tyler T. VanHoutan